

## **Abstract**

## METHOD AND ARRANGEMENT FOR DETECTING AND MEASURING THE PHASE OF PERIODICAL BIOSIGNALS

The invention relates to a method and an arrangement to detect and measure the phase of periodic biosignals. The aim of the invention is to detect and measure a causal phase response in periodic biosignals with improved reliability and higher speed compared to conventional methods, simultaneously reducing the computing power required. According to the invention, a status observer is set up in parallel with the analyzed biological system. The output variables of the biological system and the observer are evaluated in order to minimize the occurring error. The determined phase of a periodic biosignal can, for example, be used for functional diagnostic purposes.